

REMARKS

Claims 32-66 are pending in the present application, with claims 43-46, 48, 49, 54-58 and 63-65 withdrawn. Applicants note with appreciation the indication of allowable subject matter with respect to claims 35-38. With entry of this Amendment, Applicants amend claims 32, 34, 35, 37-40, 47, 51-53, 59, 60 and 62. Reexamination and reconsideration are respectfully requested.

Applicants have amended the specification to reflect that the parent application has been abandoned.

The Examiner rejected claims 32-42, 47, 50-53, 59-62 and 66 under 35 U.S.C. § 112, second paragraph.

Applicants have amended claims 32, 40, 51, 52, 59, 60 and 62 to insert the word "the" before cassette. Claim 35 has been amended to recite "removably attached" rather than "detachable attached." Claim 51 has been amended in the manner requested by the Examiner. Claim 62 has also been amended in the manner requested by the Examiner, with the phrase "in vertical with" amended to "normal to." Accordingly, Applicants respectfully submit that the claims, as amended, are definite.

Applicants note claim 62 has been further amended to better claim the invention by reciting "communicating with" rather than "communicated with."

For claim 34, Applicants note that antecedent support exists for "the transfer section" in claim 32. Claim 32 recites "each of the process units including . . . a transfer section" Applicants respectfully request the Examiner withdraw the rejection.

Applicants have amended claims 32, 34, 35, 37-40, 47, 51-53, 59, 60 and 62 to recite "an object" (i.e., at least one object) and, in certain claims, have amended "each of the transfer sections" to "any of the transfer sections." These amendments are made to better claim the invention. Applicants respectfully submit that the remainder of Examiner's rejection under § 112, second paragraph, is moot in view of these amendments.

The remaining rejections are addressed below in the order presented in the Office Action.

Claim 51

The Examiner rejected claim 51 under 35 U.S.C. § 102(b) as being anticipated by Nakane et al. (US 4483651). The rejection is respectfully traversed.

Claim 51, as amended, recites “wherein each of the second transfer devices is provided in a chamber which is independent from the common transfer chamber, and a gate is provided between the chamber of each second transfer device and the common transfer chamber.”

In contrast, as illustrated in Fig. 1 of Nakane, the main transfer conveyor 4 and the branched conveyors 3 are in the same chamber 10 and no gate is provided. Accordingly, Applicants respectfully submit that claim 51 is not anticipated by Nakane.

Claim 62

The Examiner rejected claim 62 under § 102(b) as being anticipated by Nakane. The rejection is respectfully traversed.

Claim 62 recites “a load port on which a plurality of cassette containers is to be arranged along a first linear line, each of the cassette containers holding a plurality of objects to be processed”

Nakane fails to disclose the above recitation. Nakane merely discloses a single wafer cassette 5 storing wafers to be processed (see, e.g., Col. 3, lines 18-21). Once processed, the wafers are delivered to cassette 5’ (see, e.g., Col. 4, lines 56-62). Thus, Nakane fails to disclose or suggest a plurality of cassette containers arranged in a linear line with each of the containers holding objects to be processed. Accordingly, Applicants respectfully submit that claim 62 is not anticipated by Nakane.

Claims 32, 33 and 39

The Examiner rejected claims 32, 33 and 39 under § 102(e) as being anticipated by Muka (US 6079927). The rejection is respectfully traversed.

Independent claim 32 recites “a first transfer device provided in the common transfer chamber to transfer an object between any of the transfer sections and the common transfer chamber”

Muka does not disclose the above recitation. As illustrated in Figs. 2-4, containers with wafers are transported from a container buffer 110 to a container port 170. The containers are transferred between the buffer and the port through region 258 by a container transfer mechanism 190. Wafers are removed from the containers on the container port 170 by a wafer transfer mechanism 220 located in a wafer handling region or chamber 262.

The Examiner contends that the container transfer mechanism 190 meets the recited first transfer device and the wafer handling chamber 262 meets the recited transfer section. However, as particularly illustrated in Fig. 4, the container transfer mechanism 190 merely moves the containers within region 258 and positions the containers on port 170. It does not transfer any wafers between region 258 and wafer handling chamber 262. What transfers the wafers between these two regions is the wafer transfer mechanism 220 which the Examiner contends meets the recited second transfer devices. Accordingly, Applicants respectfully submit that claim 32 is not anticipated by Muka.

Applicants respectfully submit that claims 33 and 39, which depend from claim 32, are likewise not anticipated by Muka for at least the reasons set forth above.

Claims 40-42 and 50

The Examiner rejected claims 40-42 and 50 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Independent claim 40 recites “a first transfer device provided in the common transfer chamber to transfer an object between any of the transfer sections and the common transfer chamber”

Applicants respectfully submit that claim 40 is not anticipated by Muka for at least the reasons discussed above with respect to claim 32.

Applicants respectfully submit that claims 41, 42 and 50, which depend from claim 40, are likewise not anticipated by Muka for at least the reasons set forth above with respect to claim 40.

Claim 51

The Examiner rejected claim 51 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Claim 51 recites “a plurality of process units linearly extended from the common transfer chamber at right angles thereto, each of the process units including a process section for processing an object and a second transfer device for linearly transferring the object to and from the process section without rotation of the object”

There is no disclosure in Muka that the transfer robots 230 and 232 of the wafer transfer mechanism 220 – which the Examiner contends meet the recited second transfer device – transfer wafers without rotation. Applicants note that the Examiner has not cited any section of Muka that discloses the absence of wafer rotation.

Applicants further note that claim 51 recites a plurality of process units, with each unit including a process section and a transfer device. Muka fails to disclose process *units*. As illustrated in Figs. 3 and 4 of Muka, the wafer transfer robots 230 and 232 are in the same chamber 262, and neither of them is combined with the processing chambers 120 as a unit. Accordingly, Muka does not anticipate claim 51.

Accordingly, Applicants respectfully submit that claim 51 is not anticipated by Muka.

Claim 52

The Examiner rejected claim 52 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Independent claim 52 recites “a first transfer device provided in the internal space of the common transfer chamber to transfer an object between the internal space of any transfer chamber and the internal space of the common transfer chamber”

Applicants respectfully submit that claim 52 is not anticipated by Muka for at least the reasons discussed above with respect to claim 32.

Claim 59

The Examiner rejected claim 59 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Independent claim 59 recites “a plurality of process units each including a process chamber in which an object is processed, a transfer chamber and a gate valve”

Muka fails to disclose a process *unit*, i.e., a process chamber and a transfer chamber as a unit. As illustrated in Figs. 3 and 4, the wafer transfer robots 230 and 232 are positioned in the same chamber 262, and neither of them is combined with the processing chambers 120 as a unit. Accordingly, Applicants respectfully submit that claim 59 is not anticipated by Muka.

Claims 60 and 61

The Examiner rejected claims 60 and 61 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Independent claim 60 recites “a first transfer device provided in the common transfer chamber to transfer an object between any of the transfer chambers and the common transfer chamber”

Applicants respectfully submit that claim 60 is not anticipated by Muka for at least the reasons discussed above with respect to claim 32.

Applicants respectfully submit that claim 61, which depends from claim 60, are likewise not anticipated by Muka for at least the reasons set forth above with respect to claim 60.

Claim 62

The Examiner rejected claim 62 under § 102(e) as being anticipated by Muka. The rejection is respectfully traversed.

Independent claim 62 recites “first and second process units in each of which an object is processed; a first transfer section communicating with the first process unit, an object being transferred between the first transfer section and the first process unit along a second linear line; and a second transfer section communicating with the second process unit, an object being transferred between the second transfer section and the second process unit along a third linear line”

Muka’s processing chambers 120 are connected to a common chamber 262 with wafer transport robots 230 and 232. It does not disclose individualized first and second transfer sections communicating with first and second process units respectively. Accordingly, Applicants respectfully submit that claim 62 anticipated by Muka.

Claims 34, 47, 53 and 66

The Examiner rejected claims 34, 47, 53 and 66 under 35 U.S.C. § 103(a) as being unpatentable over Muka. The rejection is respectfully traversed.

Applicants note that claims 34, 47, 53 and 66 depend from independent claims 32, 40, 52 and 62 respectively. Because claims 32, 40, 52 and 62 are not anticipated by Muka, claims 34, 47, 53 and 66 are patentable over Muka for at least the reasons set forth above for each independent claim respectively.

Applicants further note that the Examiner's proposed modification to Muka is without motivation. In the present invention as set forth in claims 34, 47 and 53, the transfer section has two buffers. In Muka, the wafer handling region 262 has a single wafer dock 234 as the Examiner acknowledges. The Examiner contends that it would have obvious to modify Muka to include a dock for each wafer transport robot 230 and 232 in region 262. However, Col. 6, lines 46-66 make clear that the dock 234 is to transfer wafers *between* robot 230 and 232. The Examiner's modification, thus, renders the function of the dock 234 -- as an *inter-robot* dock -- inoperative.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicants request that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5630 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing Docket No. 285032005901.

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Respectfully submitted,

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